

# USER MANUAL

## Fixed HDMI Matrix Switcher Series

### FIX-MANAGER-400/900/1800



Version: V2.0.1

## **Preface**

We are honored for your purchasing of our products. In order to have the best performance of the products, please read the user manual carefully before using them. Hope this user manual can bring more convenience, and please don't hesitate to get in touch with us or your local dealer if you have any issue during your usage.

Note: This user manual is for 4x4 HDMI matrix switch, the 9x9 and 18x18 also can reference this user manual.

## SAFETY REMINDER



**To protect the device and operating personnel from electrostatic discharge, you need to check and ensure that the device is grounding well before the device is powered on. Please observe the following when you install, use, maintain this equipment.**



Attention the equipment needs good earth grounded

- Please use single-phase three wire system AC 220V power supply, and ensure all transmission system is grounding well.
- To protect operating personnel and the device, please turn off all power supplies and pull the plug before moving the device or doing some specific works which need to be done when the electricity is turned off . Please turn off the main power switch on rainy days or when not in use for a long time.
- Please do not put anything upon the cables, or tread the cables.
- To avoid damaging the device, please turn off power supply before plugging cable into the device or pulling cable from device. The damage caused by plugging/ pulling cables without turning off power supply is outside the scope of the warranty.
- The power of the device gives out heat when it works, so it' s necessary to keep the work environment ventilated to protect the device from the damage caused by over temperature.
- Do not place the device in very cold or very hot places. Do not sprinkle any corrosive chemicals or liquid on or around the device.
- To avoid accident or any further damage ,non-professionals please do not dismantle or maintain the device without permission.

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## 1. Product Introduction

The Fixed HDMI matrix switcher series have 3 models: FIX-MANAGER-400(4x4), FIX-MANAGER-900(9x9) and FIX-MANAGER-1800(18x18). It all can support the APP, WEB GUI, RS232 and the 2-key fast buttons switching control. Compatible with the HDCP, resolution up to 4K2K@30Hz.

With the EDID keys for every input ports, it's perfectly solve the EDID handshaking issues, realize a perfect full-screen display or no more NO image output issues caused by the EDID.

This matrix switchers have been widely used in the conferencing, radio&television project, multimedia conferencing hall, large screen display project, television teaching, command control center and so on applications.

## 2. Product Features

- Supports APP(MCS), WEB GUI, RS232, Front buttons Control
- Support 2-key fast switching between all the signals
- 4-core 4 links processing chipset provides up to 6.5 GBPS signal switching processing ability
- Front buttons with background lights, easier to operate at any time
- Support EDID one-key handshaking and compatible with HDCP
- Support 3D image frequency repairing, pixel reread processing function
- Support dual LAN ports backup control and centralization network management function
- Support auto saving protection and auto recovery function while power cut

## 3. Technical Datasheet

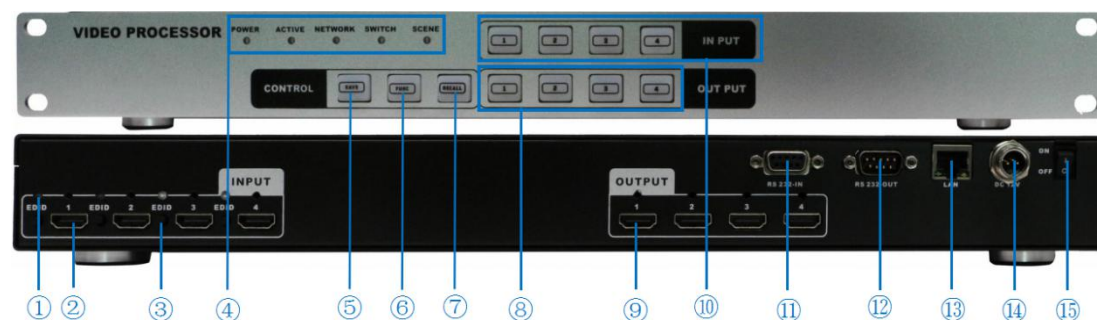
Model	FIX-MANAGER-400	FIX-MANAGER-900	FIX-MANAGER-1800
Description	4x4 HDMI Matrix	9x9 HDMI Matrix	18x18 HDMI Matrix
Protocol	HDMI1.4a, compatible with HDCP and EDID function		
Color Space	RGB444, YUV444, YUV422, support x.v.Color extension color gamut standard		
Resolution	720p ,1080i, 1080p@24/30/50/60Hz, 4K@30Hz, 1080P3D@60Hz		
Transmission	15m(Digital cable) for input and output		
Control Methods	Broadcasting switching button, dual RS232+LAN control		
Dimension(mm)	482*288*44(1RU)	482*288*44(1RU)	482*288*88(2RU)
Weight	2.5kg	3kg	4kg
Consumption	≤ 23W		
Power Supply	AC: 110V-240V 50/60Hz DC: 12V 3A		
Working Temp	-10℃ - 50℃		
Storage Temp	-25℃ - 55℃		

## 4. Packing Details

HDMI Matrix Switcher .....1 unit  
 Power adapter .....1 pcs  
 User manual .....1 pcs

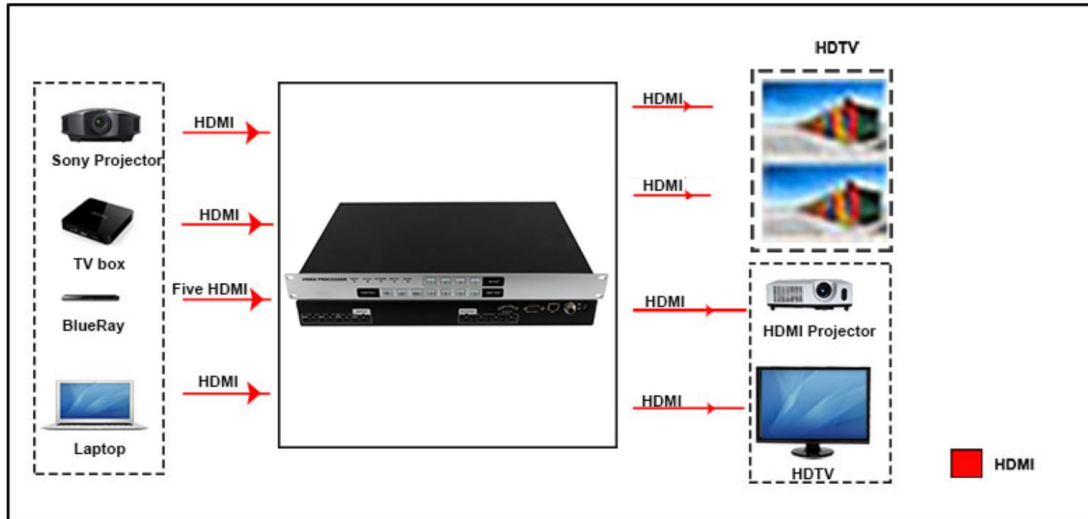
## 5. Panel Diagram(Take Example from 4x4)

### Front Panel



No.	Name	Description	
①	EDID	EDID key indicator	
②	HDMI	HDMI input ports	
③	EDID	EDID key for handshaking issues	
④	INDICATORS	POWER	Power ON/OFF indicator
		ACTIVE	Switching active indicator, flashing while switching
		NETWORK	WEB/APP control indicator
		SWITCH	Light up will be available for switching
		SCENE	Recall scenes indicator
⑤	SAVE	Save button for saving the scene/presets	
⑥	FUNC	Function button for the other selection	
⑦	RECALL	Recall button for recall the scene/presets	
⑧	OUTPUT	Output ports buttons	
⑨	OUTPUT-HDMI	Output HDMI ports	
⑩	INPUT	Input ports buttons	
⑪	RS232-IN	Female RS232 port for the 3 <sup>rd</sup> party control	
⑫	RS232-out	Male RS232 port for control the surrounding equipment	
⑬	LAN	RJ45 port for the WEB/APP control	
⑭	POWER	Screw power connector	
⑮	ON/OFF	Power ON/OFF switcher	

## 6. Equipment Connection Diagram



## 7. Equipment Operation and Instruction

Press FUNC button, it will keep recycling between VIEW, SWITCH, SCENE, SETUP four different interface. The default interface is VIEW.

### 7.1 Font buttons switching operation

#### 7.1.1 Switching operation

Switching with industry 2-key fast switching, first press the input button and then select/press output button. Details are as follow:

- There are 1~4 four input buttons, 1~4 four output buttons. First press FUNC button until SWITCH indicator light up, then can continue the next switching step
- Press input number at the INPUT area, the input button will light up with blue light
- Then press output number at the OUTPUT area, and the output button will light up.
- If need to cancel switching, can press the button again to cancel.

#### 7.1.2 Scene Operation

- The system can save 40 scenes, after switching successfully, users can press FUNC button to SCENE indicator light up.
- Enter the wanted scene save number, then press SAVE. If want to reload the saved scene, press the scene number and press RECALL button

Note: Via front buttons to save/recall scene, 4x4 only support 4 scenes, 9x9 supports 9 scenes

### 7.2 WEB Control

The default IP address are [192.168.0.80](http://192.168.0.80).

#### 7.2.1 Login Operation

Enter [192.168.0.80](http://192.168.0.80) in the browse(Recommend with Google browse) as below:

Matrix
Manager
Switch
Scene
Caption
Setup
Login
More ▾

Please login

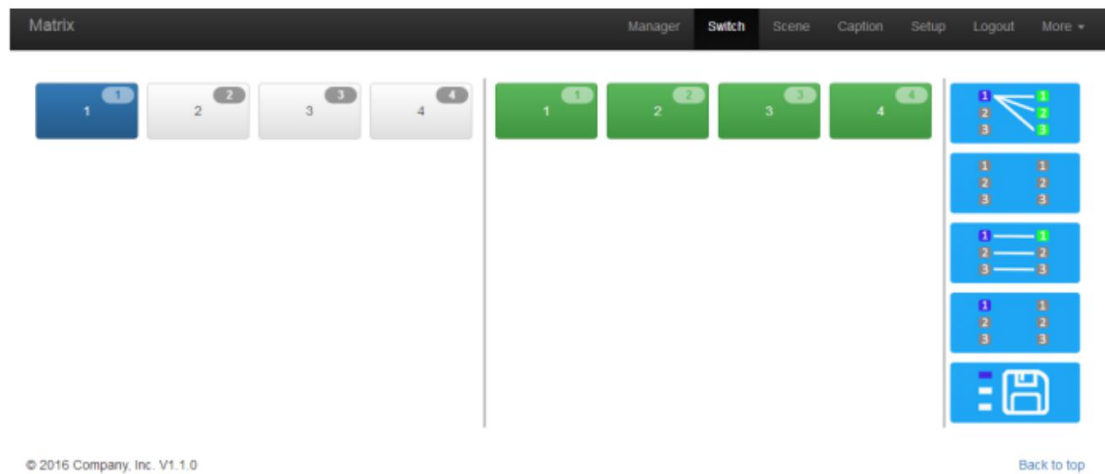


Login

Note: The default user name and password is same: admin, click login after entering. Please make sure the control PC is at the same IP segment.

### 7.2.2 Switch

#### Switch interface:



The left side of the long string is input area, the right side is output area, the buttons are the same with input area. And there're 5 buttons: The 1<sup>st</sup> for 1 to all, 2<sup>nd</sup> for 1 off to all, 3<sup>rd</sup> for 1 to 1, 4<sup>th</sup> for all off, the last one is for scene save and recall. (Change names can be done in Caption interface)

If need to switch 1 input to 1 output: First click the input number, then click the output number

If need to switch 1 input to many outputs: First click input number, then press all the needed output number

If need to switch 1 input to all outputs, first click input number, then click the 1<sup>st</sup> button at the right side

If need to switch off the input, first click the input number, then click the 2<sup>nd</sup> button at the right side

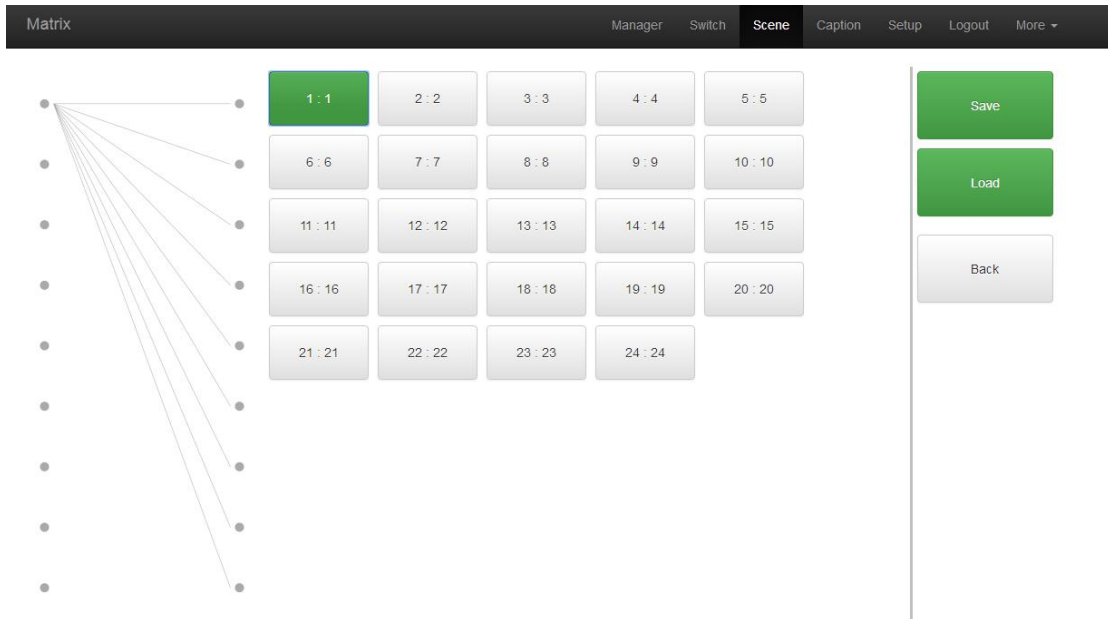
If need to switch 1 to 1, 2 to 2...., then just click the 3<sup>rd</sup> button at right side directly

If want to switch off all the input and output, then just click the 4<sup>th</sup> button at the right side directly

### 7.2.3 Scene

#### Scene Interface:



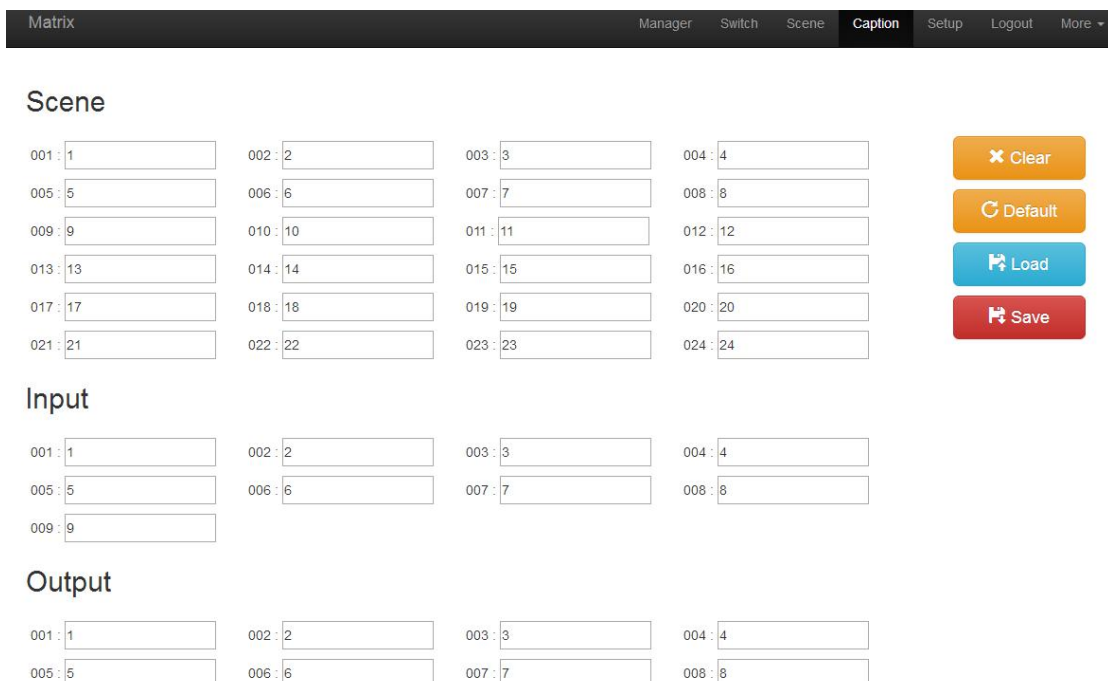


There're 24 scenes in the middle, can view the current switching status from left side, the right side are the Save, Load, Back buttons. (All scenes can be named in Caption interface)  
 If want to save the current switching status as the scene: Select the wanted scenes number(1~24), then click Save to save.  
 If want to recall the saved scenes: Select the wanted scene number(1~24), then click Load button to recall  
 Click Back button to return back the Switch interface.

#### 7.2.4 Caption:

##### For changing the input, output and scenes' name

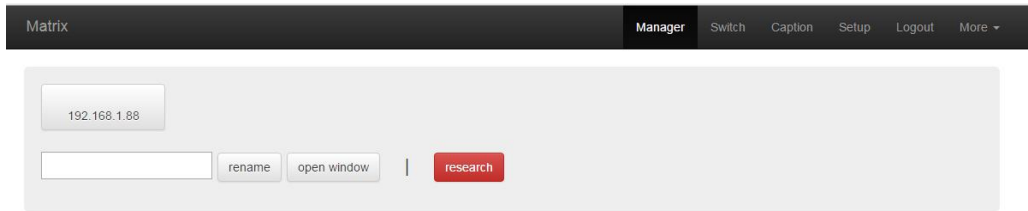
There are 3 parts on the left side, the first one is for Scene, middle one is for Input and the last one is for the Output. And there are 4 buttons on the right side, Clear for clearing all the names, Default for returning back to default status, Load is for syncing, click Load can recall all the saved names on the matrix, Save is for saving the current name changes to the matrix



## 7.2.5 Manager

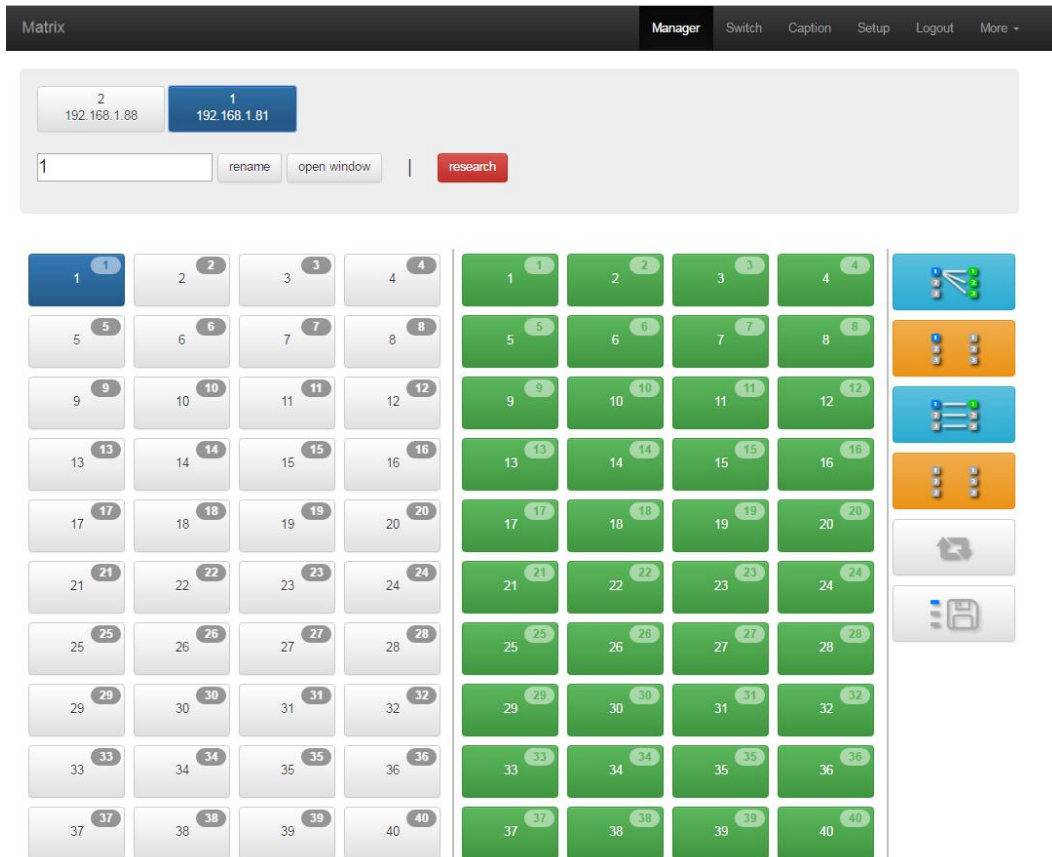
### Centralization Manage interface:

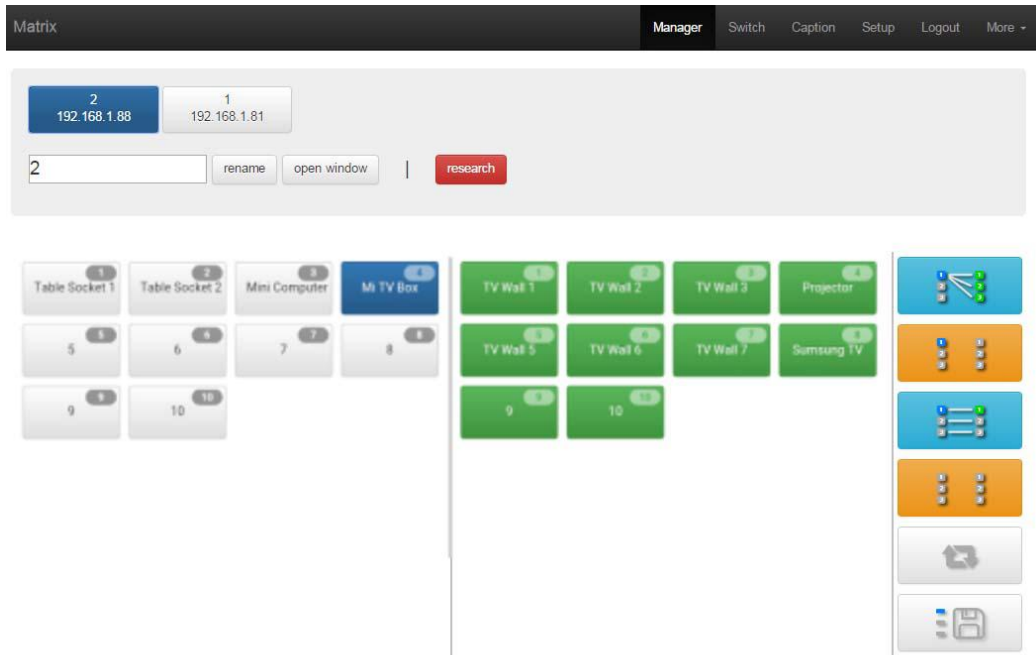
Click Manager can realize many matrices centralized controlling



At the same local area network, it can control one to many matrices with same segment but different IP address, the most can control 254 units matrices. Such as the following IP are 192.168.1.81 are 192.168.1.88 two different matrices , and 192.168.1.81 is 40x40 matrix, and 192.168.1.88 is 10x10 matrix. Click research to find and control all the matrices. Also support rename the matrices' name, such as to change 192.168.1.81 as 1, then click 192.168.1.81 and enter number 1 and click rename. And rename 192.168.1.88 as 2. Check as following interface:

Also can click IP address to control at this interface:





## 7.2.6 Setup

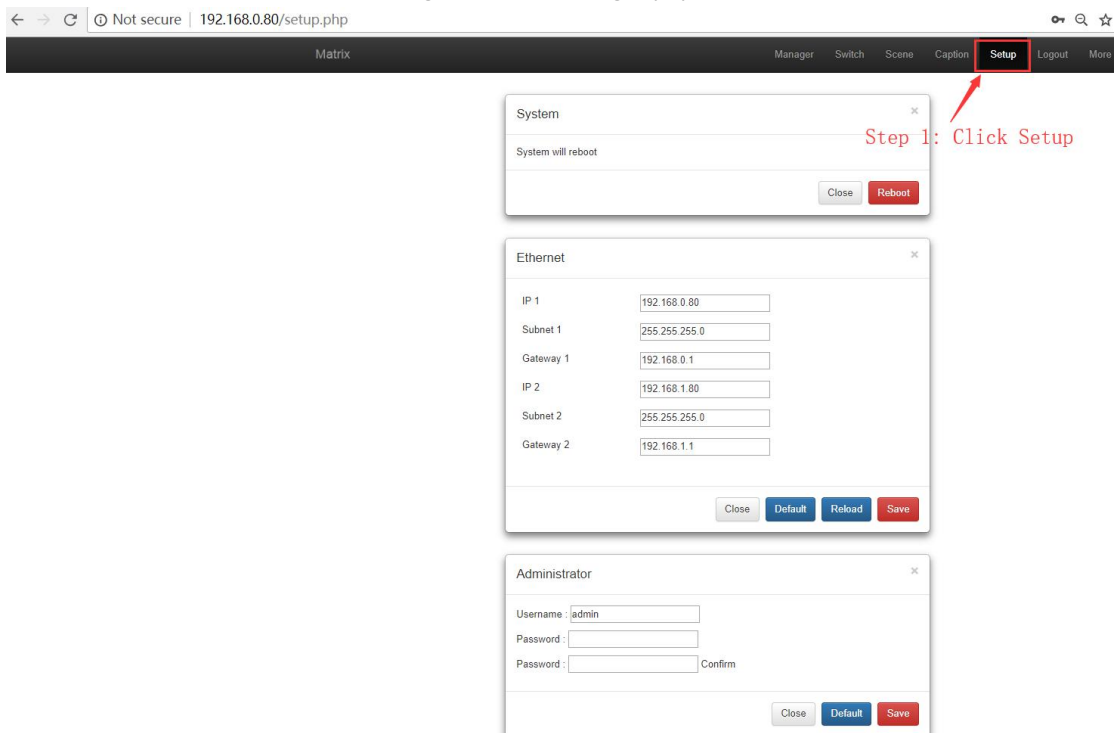
### Set up interface:

System Reboot: for modifying the matrix configuration(IP address, Login password)

Ethernet: for changing IP address accordingly

Administrator: For changing the Login user name and password

Multifunction Buttons: For controlling the surrounding equipment



← → ↻ Not secure | 192.168.0.80/setup.php

Username :

Password :

Password :  Confirm

Multifunction Buttons

01: Button 1	<input type="text" value="A53E7B01AAAAAA0102AAAAF0"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
02: Button 2	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
03: Button 3	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
04: Button 4	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
05: Button 5	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
06: Button 6	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
07: Button 7	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
08: Button 8	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
09: Button 9	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
10: Button 10	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
11: Button 11	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
12: Button 12	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
13: Button 13	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
14: Button 14	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
15: Button 15	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>
16: Button 16	<input type="text"/>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="text" value="9600"/>

**Multifunction buttons set up**, total we have 16 multifunction buttons at present. We can rename the buttons, Type the HEX code for each button, and baud rate select. Then click "Save".

Rename the buttons here

COM port select and baud rate input

Type the HEX Code here

Click to save settings

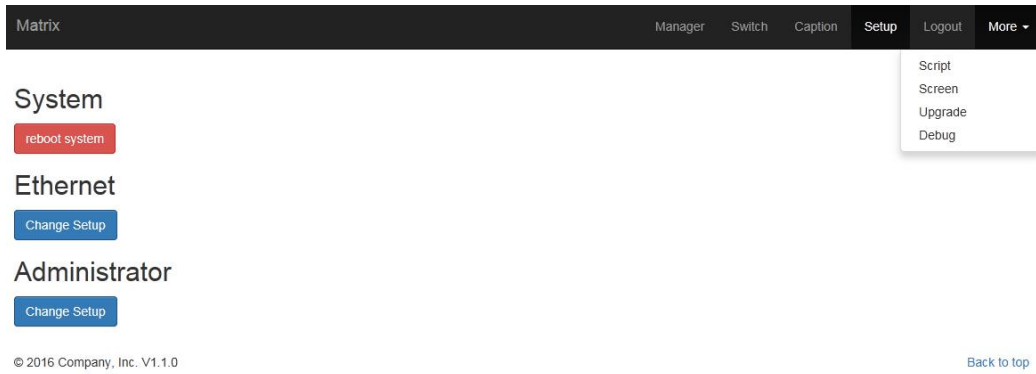
Button ID	Button Name	HEX Code	COM Port	Baud Rate
01	Switching	A53E7B01AAAAA0102AAAAF0	1	2 115200
02	Projector OFF		1	2 115200
03	Curtain Down		1	2 9600
04	Beep OFF	426565704f46462e	1	2 9600
05	Button 5		1	2 9600
06	Button 6		1	2 9600
07	Button 7		1	2 9600
08	Button 8		1	2 9600
09	Button 9		1	2 9600
10	Button 10		1	2 9600
11	Button 11		1	2 9600
12	Button 12		1	2 9600
13	Button 13		1	2 9600
14	Button 14		1	2 9600
15	Button 15		1	2 9600
16	Button 16		1	2 9600

Matrix

Manager **Switch** Scene Caption Setup Logout More

2018-08-07 11:43:29 > send 1,9600,426565704f46462e  
2018-08-07 11:43:29 > load 4

**7.2.7 More:**  
**Upgrading:** Click Upgrade can realize new software upgrading



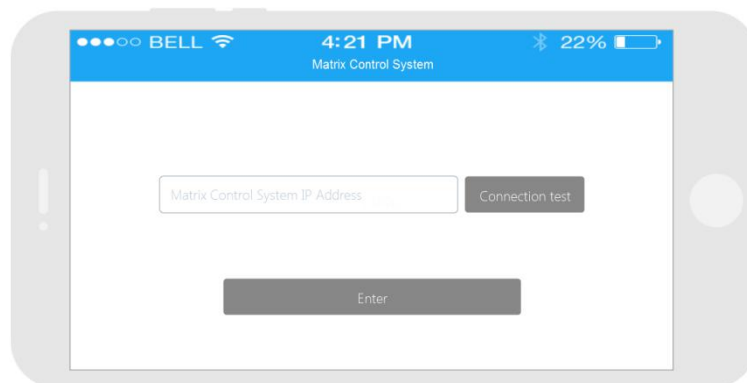
### 7.3 APP Control

It also can support IOS and Android APP control, users only need to well connected the matrix with the WIFI router or local network. Download the APP from the application store. The steps and interfaces show as below:

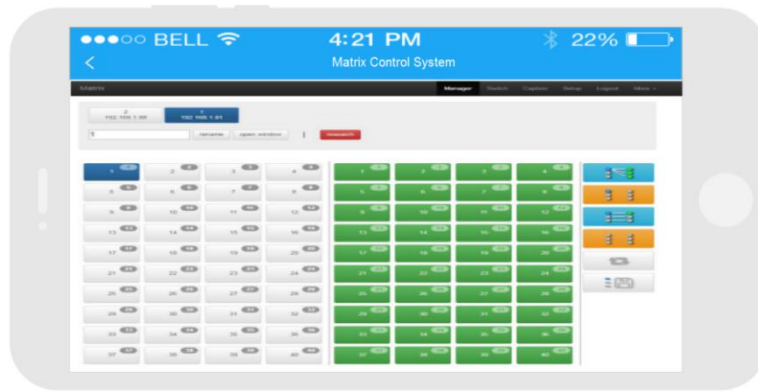
Step 1: Make sure the matrix well connected with the router or local network, and open the APP:



Step 2: Enter the IP address of the matrix:



Step 3: After log in successfully, users can switch, change the inputs and outputs name directly.



#### 7.4 Central Control Commands

RS232 cable with straight-through connection(USB-RS232 can be used directly to control)

Communication protocol:

Baud rate: 115200

Data bit: 8

Stop bit: 1

Check bit: None

Commands	Explanation	Function description
YAll.	Y=1,2,3,4.....	Switch Input Y to all the outputs Eg. "1ALL." means switch input 1 to all outputs
All1.	One to one	Switch all the channels to be one to one. Eg.1->1, 2->2, 3->3.....
YXZ.	Y=1,2,3,4..... Z=1,2,3,4.....	Switch Input Y to Output Z Eg. "1X2." means switch Input 1 to output 2
YXZ&Q&W.	Y=1,2,3,4..... Z=1,2,3,4..... Q=1,2,3,4..... W=1,2,3,4.....	Switch Input Y to Output Z, Q, W Eg. "1X2&3&4." means switch Input 1 to Output 2, 3, 4
SaveY.	Y=1,2,3,4.....	Save current status to scene Y Eg. "Save2." means saving current status to Scene 2
RecallY.	Y=1,2,3,4.....	Recall the saved scene Y Eg. "Recall2." means recall the saved Scene 2
BeepON.	Beep sound	Buzzer on
BeepOFF.		Buzzer off
Y?.	Y=1,2,3,4.....	Check the Input Y to outputs switching status Eg. "1?." means to check Input 1 switching status

Note:

- Every command ends with a period "." and it can't be missing.
- The letter can be capital or small letter.
- Switch success will return as "OK", and failed will return as "ERR".

#### 8. Trouble Shooting and Attention

No signal on the display?

- Make sure all the power code well connected

- Check the display switcher and make sure it's in good condition
- Make sure the the DVI cable between the device and display are short than 7 meters
- Reconnect the DVI cable and restart the system
- Make sure the signal sources are on
- Check the cables between the devices and displays are connected correctly.
- Dial the switcher 7 to 1, then dial the switcher1,2 and choose the corresponding inputs.
- Make sure the resolution less than WUXGA(1920\*1200)/ 60HZ
- Make sure the display can support the output resolution.

## **9. After Sales**

### **9.1 Warranty Information**

The Company warrants that the process and materials of the product are not defective under normal use and service for 2 (2) year following the date of purchase from the Company or its authorized distributors.

If the product does not work within the guaranteed warranty period, the company will choose and pay for the repair of the defective product or component, the delivery of the equivalent product or component to the user for replacement of the defective item, or refund the payment which users have made.

The replaced product will become the property of the Company.

The replacement product could be new or repaired.

Whichever is longer, any replacement or repaired of the product or component is for a period of ninety (90) days or the remaining period of the initial warranty. The Company shall not be responsible for any software, firmware, information, or memory data contained in, stored in, or integrated with the product repaired by the customer's return, whether or not during the warranty period.

### **9.2 Warranty limitations and exceptions**

Except above limited warranty, if the product is damaged by over usage, incorrectly use, ignore, accident, unusual physical pressure or voltage, unauthorized modification, alteration or services rendered by someone other than the Company or its authorized agent, the company will not have to bear additional obligations. Except using the product properly in the proper application or normal usage